



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 4261/1
Permit Holder:	Shire of Lake Grace
Duration of Permit:	9 May 2011 – 9 May 2016

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purpose of road upgrades.

2. Land on which clearing is to be done

Road Reserve PIN 11627124 (Mallee Hill 6353)

Road Reserve PIN 11634155 (Lake King 6356)

Road Reserve PIN 11640769 (Mount Madden 6356)

Lot 1 on Diagram 67075 (Mount Madden 6356)

Lot 13928 on Plan 206400 (South Lake Grace 6353)

Lot 12289 on Plan 201741 (South Lake Grace 6353)

3. Area of Clearing

The Permit Holder must not clear more than 1.5 hectares of native vegetation within the area shaded yellow on attached Plan 4261/1a and must not clear more than 0.4 hectares of native vegetation within the area shaded yellow on attached Plan 4261/1b.

4. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

5. Type of clearing authorised

This Permit authorises the Permit Holder to clear native vegetation for activities to the extent that the Permit Holder has the power to clear native vegetation for those activities under the *Local Government Act 1995* or any other written law.

6. Compliance with Assessment Sequence and Management Procedures

Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

7. Avoid, minimise etc clearing

In determining the amount of native vegetation to be cleared for the authorised purpose of this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- avoid the clearing of native vegetation;
- minimise the amount of native vegetation to be cleared; and
- reduce the impact of clearing on any environmental value.

8. Weed control

- (a) When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:
- (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
 - (ii) ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
 - (iii) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.
- (b) At least once in each 12 month period for the term of this Permit, the Permit Holder must remove or kill any *weeds* growing within areas cleared under this Permit.

PART III - RECORD KEEPING AND REPORTING

9. Records must be kept

The Permit Holder must maintain the following records in relation to the clearing of native vegetation authorised under this Permit:

- (a) the species composition, structure and density of the cleared area;
- (b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
- (c) the date that the area was cleared; and
- (d) the size of the area cleared (in hectares).

10. Reporting

- (a) The Permit Holder must provide to the CEO, on or before 30 June of each year, a written report:
- (i) of records required under condition 9 of this Permit and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 9 February 2016 the permit holder must provide to the CEO a written report of records required under condition 9 of this Permit where these records have not already been provided under condition 10(a) of this Permit.

DEFINITIONS

The following meanings are given to terms used in this Permit:

fill means material used to increase the ground level, or fill a hollow;

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

weeds means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.



Matt Warnock
ACTING MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

*Officer delegated under Section 20
of the Environmental Protection Act 1986*

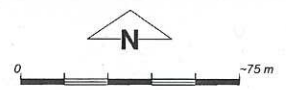
14 April 2011

Plan 4261/1a



LEGEND

- Clearing Instruments**
- Areas Approved to Clear
 - Road Centrelines
 - Cadastre
 - Local Government Authorities
- Kukerin 50cm Orthomosaic - Landgate 2006**



Scale 1:2600
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

M Warnock
Date 14/4/11

M Warnock
Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



* Project Data is denoted by asterisk. This data has not been quality assured. Please contact map author for details.

Plan 4261/1b



LEGEND

- | | |
|-----------------------------|--|
| Clearing Instruments | <input type="checkbox"/> Local Government Authorities |
| Areas Approved to Clear | <input type="checkbox"/> King 50cm Orthomosaic - Landgate 2008 |
| Road Centrelines | |
| Cadastre | |
| Towns | |



0 38 m

Scale 1:1500
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

M Warnock Date 14/4/11
M Warnock

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



Department of Environment and Conservation

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* Project Data is denoted by asterisk. This data has not been quality assured. Please contact map author for details.



1. Application details

1.1. Permit application details

Permit application No.: 4261/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Shire of Lake Grace

1.3. Property details

Property: ROAD RESERVE (MALLEE HILL 6353)
 LOT 1 ON DIAGRAM 67075 (MOUNT MADDEN 6356)
 LOT 13928 ON PLAN 206400 (SOUTH LAKE GRACE 6353)
 LOT 12289 ON PLAN 201741 (SOUTH LAKE GRACE 6353)
 ROAD RESERVE (MOUNT MADDEN 6356)
 ROAD RESERVE (LAKE KING 6356)

Local Government Area:

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.4		Mechanical Removal	Road construction or maintenance
1.5		Mechanical Removal	Road construction or maintenance

1.5. Decision on application

Decision on Permit Application: Granted

Decision Date: 14 April 2011

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
The vegetation under application is mapped as Beard vegetation type (Eastern applied area) 941: Mosaic: Medium woodland; salmon gum & morrel / Shrublands; mallee scrub, redwood; and	The proposal is to clear at the western applied area, 1.5 ha of native vegetation on Pingrup-Lake Grace Road [at the intersection of Brookfield Road] and at the eastern applied area, 0.4 ha of native vegetation on Newdegate-Ravensthorpe Road [at the intersection of Old Newdegate Road] for the purpose of road upgrades.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The vegetation description and condition was determined via site visit conducted on 15 March (DEC 2011) and a flora survey report prepared by Enviroworks Consulting (Shire of Lake Grace 2011).
(Western applied area) Beard 1098: Mosaic: Medium sparse woodland; salmon gum & morrel / Succulent steppe; samphire (Hopkins et al 2001; Shepherd 2009)	The vegetation within the western applied area (Pingrup-Lake Grace Road) is described as Low woodland over sparse shrubs with the vegetation considered to be in degraded to good (Keighery 1994) condition (DEC 2011; Shire of Lake Grace 2011). The vegetation included Eucalyptus astringens subsp redacta, Santalum acuminatum and Lepidosperma viscidum (Shire of Lake Grace 2011).		
	The vegetation within the eastern applied area (Newdegate-Ravensthorpe Road) is described as Low open woodland over medium sparse shrubs with the vegetation considered to be in degraded to good (Keighery 1994) condition (Shire of Lake Grace 2011). The vegetation included Eucalyptus olivina, Bossiaea rufa and Lepidosperma viscidum (Shire of Lake Grace 2011).		
		Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments

Proposal is not likely to be at variance to this Principle

The proposal is to clear at the western applied area, 1.5 ha of native vegetation on Pingrup-Lake Grace Road [at the intersection of Brookfield Road] and at the eastern applied area, 0.4 ha of native vegetation on Newdegate-Ravensthorpe Road [at the intersection of Old Newdegate Road] for the purpose of road upgrades. This proposal is a black spot funded project.

The vegetation within the western applied area is described as Low woodland over sparse shrubs with the vegetation considered to be in degraded to good (Keighery 1994) condition (DEC 2011; Shire of Lake Grace 2011). The vegetation within the eastern applied area is described as Low open woodland over medium sparse shrubs with the vegetation considered to be in degraded to good (Keighery 1994) condition (Shire of Lake Grace 2011).

Within the local area (20 km radius) of the western applied area there are records of 14 species of priority flora and three species of rare flora; and of the eastern applied area there are records of 17 species of priority flora and two species of rare flora. These two species of rare flora species (*Eremophila subteretifolia* and *Anigozanthos bicolor* subsp minor), occur on similar soils and within similar vegetation types to that of the applied area; therefore the suitable habitat may occur within the eastern applied area.

A flora survey undertaken by Enviroworks Consulting (Shire of Lake Grace 2011) did not identify any rare or priority flora with the applied areas. It is noted that the survey report did not identify *Eremophila subteretifolia* and *Anigozanthos bicolor* subsp minor as potentially occurring within the eastern applied area.

There are also 14 conservation significant fauna species recorded within Shire of Lake Grace. It is considered that the vegetation is likely to comprise limited values as habitat for wildlife and as ecological linkage with areas of remnant vegetation in the local area.

Given the minimal clearing proposed and the extent of disturbance within the areas under application, the vegetation is not likely to comprise high biodiversity.

Methodology

References:

- DEC (2011)
- Keighery (1994)
- Shire of Lake Grace (2011)

GIS Database:

- SAC Bio Databases accessed 7/4/2011

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Comments

Proposal is not likely to be at variance to this Principle

There have been 14 conservation significant fauna species recorded within Shire of Lake Grace, including malleefowl (*Leipoa ocellata*) (listed as Rare or is likely to become extinct under the State Wildlife Conservation Act 1950 and Vulnerable under the Commonwealth EPBC Act 1999), woylie (*Bettongia penicillata ogilbyi*) (listed as Rare or is likely to become extinct under the State Wildlife Conservation Act 1950) and Carnaby's black cockatoo (*Calyptorhynchus latirostris*) (listed as Rare or is likely to become extinct under the State Wildlife Conservation Act 1950 and Endangered under the Commonwealth EPBC Act 1999).

The vegetation within the western applied area is described as Low woodland over sparse shrubs with the vegetation considered to be in degraded to good (Keighery 1994) condition (DEC 2011; Shire of Lake Grace 2011). The vegetation within the eastern applied area is described as Low open woodland over medium sparse shrubs with the vegetation considered to be in degraded to good (Keighery 1994) condition (Shire of Lake Grace 2011).

Given the minimal clearing proposed and the extent of disturbance within the areas under application, the vegetation is likely to comprise limited values as habitat for wildlife and as part of an ecological linkage with areas of remnant vegetation in the local area.

Methodology

References:

- DEC (2011)
- Keighery (1994)
- Shire of Lake Grace (2011)

GIS Database:

- SAC Bio Databases accessed 7/4/2011

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments Proposal may be at variance to this Principle

Within the local area (20 km radius) of the western applied area, there have been records of nine occurrences of three species of rare flora species, the closest record is *Caladenia melanema* located ~12.3 km south-west of the applied area. These three species occur on different soils and within different vegetation types to that of the applied area.

Within the local area (20 km radius) of the eastern applied area, there have been records of nine occurrences of two species of rare flora species (*Eremophila subteretifolia* and *Anigozanthos bicolor* subsp minor), the closest record is *E. subteretifolia* located ~1.3 km north-west of the applied area. These two species occur on similar soils and within similar vegetation types to that of the applied area. It is noted that these two species were not listed in the survey report prepared by Enviroworks Consulting (Shire of Lake Grace 2011),

E. subteretifolia: Prostrate shrub, that occurs on grey sand, loam, edges of salt lakes, sub-saline flats (WA Herbarium 1998-).

Anigozanthos bicolor subsp minor: Perennial herb, that occurs on sand and well-watered sites (WA Herbarium 1998-).

These habitat types may occur within the area under application. Therefore the clearing proposal may be at variance to this Principle.

Methodology References:

- Shire of Lake Grace (2011)

- WA Herbarium (1998-)

GIS Database:

- SAC Bio Databases accessed 7/2/2011

- Soils, Statewide

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

Comments Proposal is not likely to be at variance to this Principle

There no known occurrences of TEC within the local area (20 km radius). The closest record is the critically endangered ?Unwooded freshwater wetlands of the southern wheatbelt?? located approximately 32 km east of the western applied area and 80 km west of the eastern applied area.

Given the distance to the nearest TEC and the results of the flora surveys by Enviroworks Consulting (Shire of Lake Grace 2011), it is considered that the vegetation under application does not comprise or is necessary for the maintenance of any threatened ecological community. Therefore, the proposed clearing is not considered likely to be at variance to this Principle.

Methodology Reference:

- Shire of Lake Grace (2011)

GIS Database:

- SAC Bio Databases accessed 7/4/2011

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

Comments Proposal is not likely to be at variance to this Principle

The vegetation under application is described as Beard vegetation types 941 and 1098 of which there is 15.7% and 34.4%% of pre-1750 extent remaining within the bioregion, respectively (Shepherd 2009).

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001). Beard vegetation type 941, which is associated with the eastern applied area Newdegate-Ravensthorpe Road, has 15.7% pre-1750 extent remaining, of which 0.4 ha is proposed to be cleared.

Given the degraded to good (Keighery 1994) condition of the vegetation and the minimal proposed clearing, the vegetation is considered to comprise limited biodiversity and habitat values and therefore the vegetation is not considered to be significant. Further, given the extent of vegetation remaining in the Shire and bioregion, the landscape is not considered to be extensively cleared. Therefore, the proposed clearing is not likely to be at variance with this Principle.

Pre-European (ha)	Current extent (ha)	Remaining (%)	In reserves (%)
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IBRA Bioregions*:

Mallee (M)	7,395,897	4,115,655	55.6	
Shire of Lake Grace*	1,188,339	410,840	34.5	
Beard Vegetation Types*				
941 (M)	23,425	3,694	15.7	48.3
1098 (M)	13,668	4,707	34.4	41.0

* (Shepherd 2009)

Methodology References:
- Commonwealth of Australia (2001)
- Keighery (1994)
- Shepherd (2009)
GIS Databases:
- Pre-European Vegetation
- Interim Biogeographic Regionalisation of Australia

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments **Proposal is not likely to be at variance to this Principle**
A non-perennial salt lake is mapped on the western side of the proposed clearing at Pingrup-Lake Grace Road with saltbushes growing in the area (Shire of Lake Grace 2011). There is no watercourse or salt lake mapped within the proposed clearing at Newdegate-Ravensthorpe Road and no wetland or watercourse vegetation was identified within the area (Shire of Lake Grace 2011).
It is considered that minimal vegetation associated with the salt lake may be impacted and the vegetation has limited environmental values. Therefore, the proposed clearing is not likely to be at variance with this Principle.

Methodology Reference:
- Shire of Lake Grace (2011)
GIS Database:
- Hydrography, linear

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments **Proposal is not likely to be at variance to this Principle**
The western applied area and the surrounding landscape can be described as very gently undulating plains sloping upwards from the eastern sides of saline valleys; and the soils have been identified as DD11, brown and grey-brown calcareous earths (Northcote et al 1960-68).
The eastern applied area and the surrounding landscape can be described as gently undulating pediments with narrow ironstone gravel ridges, some swamps and lakes; and the soils have been identified as S130, hard, and sandy, alkaline yellow and yellow mottled soils (Northcote et al 1960-68).
These identified soils are generally susceptible to wind and water erosion. However, given the long and linear nature of the clearing and the limited clearing (1.5 ha and 0.4 ha), it is considered that the proposed clearing is not likely to result in appreciable land degradation. Therefore the clearing as proposed is not likely to be at variance to this Principle.

It is noted that appropriate management practices such as road drainage and the installation of a bituminised surface would likely limit land degradation caused by water and wind erosion.

Methodology Reference:
-Northcote et al (1960-68)
GIS Database:
-Soils, statewide

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Comments **Proposal may be at variance to this Principle**
The closest conservation area to the western applied area (Pingrup-Lake Grace Road) is Chinocup Nature Reserve, located approximately 950 m south-west of the applied area.
The closest conservation area to the eastern applied area (Newdegate-Ravensthorpe Road) is Pallarup Nature

Reserve, located approximately 30 m north-west of the applied area.

The proposed clearing may indirectly impact on the environmental values of the adjoining conservation reserves through the spread or introduction of weed species by machinery. The consequences associated with the spread of such exotic species into areas reserved for conservation, include the significant degradation of the reserve.

Given the potential indirect impact through the spread of weeds; it is considered likely that the clearing as proposed may impact on the environmental values of nearby conservation areas. Therefore, the clearing as proposed may be at variance to this Principle.

A weed control condition would mitigate any impacts from the proposed clearing.

Methodology GIS Database:
- DEC Tenure

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments Proposal is not likely to be at variance to this Principle

A non-perennial salt lake is mapped on the western side of the proposed clearing at Pingrup-Lake Grace Road; and there is no watercourse or salt lake mapped within the proposed clearing at Newdegate-Ravensthorpe Road (Shire of Lake Grace 2011).

Given the long and linear nature of the clearing and the limited vegetation to be cleared (1.5 ha and 0.4 ha), it is considered that the proposed clearing is not likely to cause deterioration in the quality of surface or ground water. Therefore the clearing as proposed is not likely to be at variance to this Principle.

It is noted that having appropriate road drainage incorporated in the road upgrade would likely limit any erosion resulting from the clearing proposal.

Methodology Reference:
- Shire of Lake Grace (2011)
GIS Database:
- Hydrography, linear

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments Proposal is not likely to be at variance to this Principle

A non-perennial salt lake is mapped on the western side of the proposed clearing at Pingrup-Lake Grace Road; and there is no watercourse or salt lake mapped within the proposed clearing at Newdegate-Ravensthorpe Road (Shire of Lake Grace 2011).

Given the limited and linear nature of the proposed clearing it is not considered likely to cause or exacerbate flooding on a local scale.

Methodology Reference:
- Shire of Lake Grace (2011)
GIS Database:
- Hydrography, linear

Planning instrument, Native Title, Previous EPA decision or other matter.

Comments

The proposal is to clear 1.5 ha of native vegetation on Pingrup-Lake Grace Road [at the intersection of Brookfield Road] and 0.4 ha of native vegetation on Newdegate-Ravensthorpe Road [at the intersection of Old Newdegate Road] for the purpose of upgrading the roads as part of Black Spot program funding.

The areas under application also include freehold land, which as stipulated under the Local Government Act 1995 may be compulsorily acquired under the Land Administration Act 1997.

Methodology Reference:
- Shire of Lake Grace (2011)

4. References

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

- DEC (2011) Site Inspection Report for Pingrup - Lake Grace Road (Western Area), Lake Grace. Site inspection undertaken 15 March 2011. Department of Environment and Conservation, Western Australia. DEC Ref A380876
- Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Shepherd, D.P. (2009) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.
- Shire of Lake Grace (2011) Application for a Clearing Permit CPS 4261/1 and Supporting Information, Shire of Lake Grace, Western Australia. DEC Ref A378374
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed 7/4/2011).

5. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)